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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/064,376	07/08/2002	Jeffrey S. Brown	BUR920010176	4012
23389	7590	08/22/2005	EXAMINER	
SCULLY SCOTT MURPHY & PRESSER, PC 400 GARDEN CITY PLAZA SUITE 300 GARDEN CITY, NY 11530			KANG, DONGHEE	
			ART UNIT	PAPER NUMBER
			2811	

DATE MAILED: 08/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	Application No. 10/064,376	Applicant(s) BROWN ET AL.	
	Examiner Donghee Kang	Art Unit 2811	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 July 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 and 10-18 is/are pending in the application.
- 4a) Of the above claim(s) 4-6 and 13-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 & 10-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7-18-05 has been entered.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

3. Claims 1-3 & 10-12 are rejected under 35 U.S.C. 102(a) as being anticipated by Delpech et al. (US 6,271,574).

Re claim 1, Delpech et al. teach a fuse element formed on a semiconductor substrate (41, Fig.9), the substrate having a standard subset of integrated circuit elements thereon all having a minimum design width and that receive first and second power supply voltages, a conductive line (22) formed on said substrate and having two end portions for connecting two adjacent features (5 & 6, Fig.3) on said semiconductor substrate receiving respective said first and second power supply voltages, said conductive line further having a center portion with said two end portions and said

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center portion having said minimum design width, said conductive line further having a link portion formed approximately at the center of said center portion and spaced from said end portions which has a sub-minimum width less than said minimum design width, wherein said center portion is spaced from said two end portions by a spacing equal to at least twice said minimum design width, and an application of said first and second power supply voltages across said end portions causes an electrical property of said fuse element to undergo a detectable change. Delpech et al. do not teach the two minimum design width end portions and the sub-minimum width link portion are produced simultaneously in one photolithographic operation. However, this is a product-by-process limitation. The process limitations are given no patentable weight in device claim. The final structure of claimed invention is identical to the Delpech's device.

Delpech et al. do not explicitly teach the spacing between said center portion and the end portions is sufficient to prevent the end portions from serving as a heat sink. However, this feature is inherent in Delpech's structure because the claimed structure is identical to the Delpech's structure.

Re claim 2, Delpech et al. teach the conductive line including a silicide thereon (Col.6, lines 6-15).

Re claim 3, Delpech et al. teach the changed electrical property is resistance of the conductive line.

Re claims 10-12, Delpech et al. teach the conductive line (polysilicon E-fuse) including a narrow sub minimum width polysilicon line to provide increased self heating during programming when a current is passed through the E-fuse.

wherein the polysilicon E-fuse uses a shorted/open line to distinguish a programmed/unprogrammed E-fuse and

Wherein the polysilicon E-fuse uses a change in resistance to distinguish a programmed/unprogrammed E-fuse.

***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donghee Kang whose telephone number is 571-272-1656. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Loke can be reached on 571-272-1657. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Donghee Kang  
Primary Examiner  
Art Unit 2811

dhk